ZB5AD5

black selector switch head Ø22 3-position spring return





Main

Range of product	Harmony XALF Harmony XB5
Product or component type	Head for selector switch
Device short name	ZB5
Bezel material	Dark grey plastic
Mounting diameter	22 mm
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	To centre spring return
Operator profile	Black standard handle
Operator position information	3 positions +/- 45°

Complementary

CAD overall width	29 mm			
CAD overall height	29 mm			
CAD overall depth	46 mm			
Net weight	0.017 kg			
Mechanical durability	1000000 cycles			
Station name	XALD 15 cut-outs			
	XALK 25 cut-outs			
Electrical composition code	C3 for <6 contacts using single blocks in front mounting			
	C4 for <6 contacts using single and double blocks in front mounting			
	C5 for <5 contacts using single blocks in front mounting			
	C6 for <5 contacts using single and double blocks in front mounting			
	C7 for <4 contacts using single blocks in front mounting			
	C8 for <4 contacts using single and double blocks in front mounting			
	C11 for <3 contacts using single blocks in front mounting			
	SF1 for <3 contacts using single blocks in front mounting			
	SR1 for <3 contacts using single blocks in rear mounting			
Device presentation	Basic element			

Environment

Protective treatment	TH	
Ambient air temperature for storage	-4070 °C	
Ambient air temperature for operation	Ambient air temperature for operation -4070 °C	
Overvoltage category	Class II conforming to IEC 60536	
IP degree of protection	IP67 conforming to IEC 60529 IP69 conforming to IEC 60529 IP69K	
NEMA degree of protection	NEMA 13 NEMA 4X	
Resistance to high pressure washer	7000000 Pa at 55 °C, distance : 0.1 m	
IK degree of protection	IK06 conforming to IEC 50102	

Standards	UL 508
	IEC 60947-5-1
	IEC 60947-1
	CSA C22.2 No 14
	IEC 60947-5-4
	JIS C8201-5-1
	JIS C8201-1
Product certifications	UL listed[RETURN]GL[RETURN]LROS (Lloyds register of shipping) [RETURN]DNV[RETURN]BV[RETURN]CSA
Vibration resistance	5 gn (f= 2500 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC
	60068-2-27
	50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.700 cm
Package 1 Width	5.400 cm
Package 1 Length	5.900 cm
Package 1 Weight	24.000 g
Unit Type of Package 2	BB1
Number of Units in Package 2	5
Package 2 Height	5.500 cm
Package 2 Width	3.400 cm
Package 2 Length	26.500 cm
Package 2 Weight	123.000 g
Unit Type of Package 3	S03
Number of Units in Package 3	200
Package 3 Height	30.000 cm
Package 3 Width	30.000 cm
Package 3 Length	40.000 cm
Package 3 Weight	5.300 kg

Offer Sustainability

Green Premium product			
☑ REACh Declaration			
Yes			
Pro-active compliance (Product out of EU RoHS legal scope) EEU RoHS Declaration			
Yes			
Yes			
China RoHS Declaration			
₫Yes			
Product Environmental Profile			
End Of Life Information			

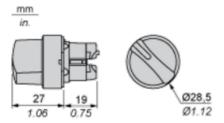
Contractual warranty

Warranty	18 months

Product data sheet Dimensions Drawings

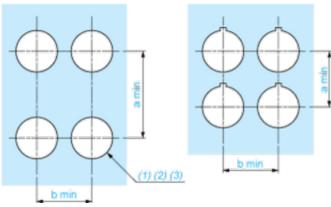
ZB5AD5

Dimensions



Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

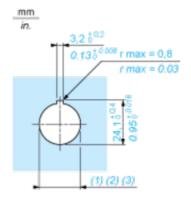
Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3 $_0$ ^{+0.4}) / Ø0.89 in. recommended (Ø0.88 in. $_0$ ^{+0.016})

Connections	a in mm	a in in.	b in mm	b in in.
By screw clamp terminals or plug-in connector	40	1.57	30	1.18
By Faston connectors	45	1.77	32	1.26
On printed circuit board	30	1.18	30	1.18

Detail of Lug Recess



- (1) Diameter on finished panel or support
- (2) For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- (3) Ø22.5 mm recommended (Ø22.3 $_0$ ^{+0.4}) / Ø0.89 in. recommended (Ø0.88 in. $_0$ ^{+0.016})

Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

Panel Cut-outs (Viewed from Installer's Side)



A: 30 mm min. / 1.18 in. min.

B: 40 mm min. / 1.57 in. min.

Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

Dimensions in mm



A: 30 mm min.

B: 40 mm min.

Dimensions in in.



A: 1.18 in. min. B: 1.57 in. min.

General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in.: T1 + T2 = 0.3 mm max.

Installation Precautions

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB5AZ009: ± 2°30' (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB5AZ079 fixing collar/pillar and its fixing screws:
 - $\circ \quad$ every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
 - o with each selector switch head (ZB5AD•, ZB5AJ•, ZB5AG•).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



- (1) Head ZB5AD•
- (2) Panel
- (2) Nut

Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm ± 0.05 / 0.09 in. ± 0.002 for centring adapter ZBZ01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes Ø 2.4 mm / 0.09 in. for clipping in adapter ZBZ01•

Dimensions An + 18.1 relate to the Ø 2.4 mm \pm 0.05 / 0.09 in. \pm 0.002 holes for centring adapter ZBZ01•.

Electrical Composition Corresponding to Code C3
Electrical Composition Corresponding to Code C4
Electrical Composition Corresponding to Code C5
Electrical Composition Corresponding to Code C6

Electrical Composition Corresponding to Code C7

Floatrical Composition Corresponding to Code C9
Electrical Composition Corresponding to Code C8
Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1
Electrical Composition Corresponding to Code C15
1 N/O
1 N/C
4 N/O + N/O + 4 N/O + N/O + 4 N/O + N/O
1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C
Legend
Single contact
Double contact

Light block

Possible location



Sequence of Contacts Fitted to 3-position Selector Switch Body

Position 315°



Push	Position	Тор			
Bottom			\triangle		
Location		Left	Centre	Right	
State		1	1	0	
Contacts	N/O		closed	closed	open
N/C		open	open	closed	

Position 0°



Push	Position Top				
Bottom					
Location		Left	Centre	Right	
State		0	0	0	
Contacts	N/O		open	open	open
N/C		closed	closed	closed	

Position 45°



Push	Position	Тор			
Bottom	\triangle		•		
Location		Left	Centre	Right	

State		0	1	1	
Contacts	N/O		open	closed	closed
N/C		closed	open	open	